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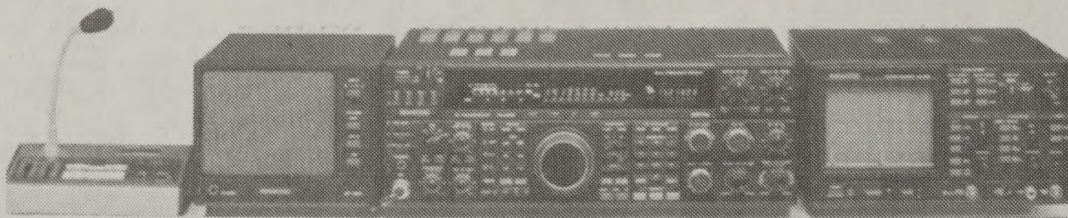
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## ABOUT THE COVER



June is CRRL Board Meeting month. At last year's meeting, from left to right: General Manager Ray Staines, VE3ZJ; Atlantic Director Carl Anderson, VE1UU; and Ontario North Director Ray Perrin, VE3FN. This year's meeting is being held in Rexdale, Ontario, on June 1. ■

# It Seems to Us.../Il nous semble...

## Cooperation in ARES

One of the best things that CRRL inherited from ARRL was ARES. ARES is the Amateur Radio Emergency Service. Some people think that any group involved in emergency communications is part of ARES. We don't get too upset when this happens, but it isn't true. ARES is not a generic term. ARES means the CRRL-sponsored Amateur Radio Emergency Service.

How is ARES structured? If you like, think of it as sort of a pyramid. In each CRRL Section, the elected Section Manager (SM) appoints a Section Emergency Coordinator (SEC) with overall responsibility for ARES. The SEC appoints District Emergency Coordinators (DECs—these are optional) and the Emergency Coordinators (ECs) who are the real leaders of the ARES groups in the various local areas.

As we said, you can think of it as sort of a pyramid. But that wouldn't be reality. A pyramid structure implies that the most important work is done by the people at the top. It also implies top-down control. In actual fact, the most important work in ARES is done by the ECs and individual members in each ARES group. This is reflected in the way that most ECs are chosen. They are first elected by members of their ARES group and they are then recommended to the SEC who gives them their appointments. This is also reflected in the fact that each ARES group sets its own priorities and its own agenda. ARES is very much a bottom-up organization.

This reality is probably ARES' greatest strength. Most emergencies are local in nature. Municipalities understand this. This is why they rarely look beyond their local resources when formulating plans to deal with emergencies. They may not be interested, for instance, in having a provincial government agency intervene. That would be top-down control by people who could not possibly be familiar with the local situation. By the time such an agency figured out what to do, it would be too late. The emergency would be over with many needs unmet.

In contrast, ARES fits in nicely with municipal thinking. ARES is local people serving the local community. And because they are familiar with their community, because they have made formal plans to serve that community in time of emergency—even getting themselves included in their community's official emergency plan—because they train to make that plan work, and because they use methods that work, they can react quickly and provide a real service when it is needed.

Where does CRRL fit into all of this? CRRL, through its elected Board of Directors, has final responsibility for the rules that govern the Field Organization. That includes the Section organizations, and ultimately, ARES. The Board appoints a Field Services Manager who serves as a liaison between itself and the Field Organization. The Field Services Manager is responsible for production and distribution of materials that support the Field Organization. For ARES, that includes guidelines, "how to" materials and certificates.

What are some of the guidelines for ARES? The SEC, DECs and ECs are expected to be CRRL members (after all, ARES is a CRRL-sponsored program). In time of emergency, ARES does not barge in, but follows a predetermined emergency plan or waits to be asked to assist. ARES provides backup—not primary—communications only. Operating procedures are in accordance with ARRL-CRRL guidelines. That means messages in standard format, passed in standard ways. ARES has first access to the National Traffic System, should messages have to be passed outside the local area.

In addition, CRRL has some informal policies regarding ARES. For historical reasons, amateurs in some parts of Canada have formed excellent emergency groups outside of the ARES structure. Where this has happened, CRRL does not "push" ARES. If it's working well, CRRL doesn't try to fix it.

This does not mean that CRRL will not allow ARES groups in these areas. Often, the existing group is organized on a province-wide basis. Municipalities are often reluctant to work with province-wide groups, just as they are reluctant to work with provincial government agencies. They fear loss of control, that in an emergency, the needs of their community might not be met. In these cases, it is not unusual for a local group come on the scene, offer its services, and later ask for ARES status.

Whenever this happens, the group will not be refused. The key issue then becomes how can the new ARES group work with the pre-existing group? Does the ARES group compete or cooperate?

Close examination usually reveals that the two groups perform different but complementary functions. While most emergencies are local in nature, some are not, and a province-wide organization can have a real role to play. It becomes time for everyone to meet. Certainly, cooperation is the way to go. —Harry MacLean, VE3GRO ■



All letters are considered carefully. Letters are edited for clarity and may be condensed in order to have more information and readers' views presented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

## COQUITLAM SENIORS

I am writing with the hope that my club will be mentioned in *QST Canada*. Coquitlam Seniors ARES Society has been in existence since November, 1989. It now has 30 members. I have been teaching Advanced Amateur courses since I started the club. We now have six seniors who have their Advanced, and five more—including my XYL—who will have it soon. Originally, the club was formed for seniors who live in apartments or buildings that do not facilitate Amateur Radio. Now we hope to introduce younger people into our club. We hold our meetings and licensing classes

at Dogwood Pavilion every Wednesday, 7–9 p.m. Soon, we hope to obtain a building from the District of Coquitlam so we can put our club station, VE7SCC, on the air. Then we can apply for grants for equipment. This will give us an operating position in event of disaster. I would like to see similar stations set up from coast to coast. —Ed Calderwood, VE7BQM, 182 Trent Ave, Coquitlam, BC V3J 2K3

## GOLFBALL, ANYONE?

Thanks for printing my report on the Goalball Championships last February. Unfortunately, Murphy struck, and it came out as

Golfball Championships, but no harm was done! 73. —Dick Maguire, VE4HK

## Calendar



**Attention:** Deadline for items is the 20th of the second month preceding month of publication. For example, information should reach *QST Canada* by January 20 to be included in a March issue.

**Boissevain, MB:** 28th Annual Hamfest, July 12–14 at the International Peace Gardens on the Manitoba/North Dakota border. Camping, amateur and non-amateur activities, flea market and dance. For more information, contact David Snyder, VE4XN, 25 Queens Cr, Brandon, MB R7B 1G1, Tel (204) 728-2463.

**Burbank, AB:** 19th Annual Picnic, July 14–16 at Burbank Campground, 2.5 km east of Highway 2A on Highway 597, then 3 km south. Sponsored by Central Alberta Radio League (CARL). Flea market, bunny hunt, barbecue, dance, Sunday pancake breakfast, children's and ladies' programs. Camping: \$15 per family, \$10 single. Registration \$6, \$3 for children under 12. Barbecue and dance \$5. Talk-in on VE6UK, 147.15 MHz (+), or on 146.52-MHz simplex. For more information, contact Pat Wright, VE6ALD @ VE6BJH, Tel (403) 886-3883.

**Gander, NF:** VO Amateur Convention, July 13–14. Sponsored by Amateur Radio Club of Newfoundland (ARCON). Seminars on digital modes, repeaters and linking, net operation, ARES, RFI, current issues. Commercial exhibits, banquet. For more information, contact Mac Moss, VO1AT, 52 Raynham Ave, Gander, NF A1V 2N2.

**Kitchener, ON:** 17th Annual Central Ontario Amateur Radio Flea Market, June 1 at Bingeman Park, 1380 Victoria St N (Highway 7). Sponsored by Guelph and Kitchener Waterloo ARCS. Opens at 0800, 0600 for vendors. Admission \$5. Tables \$8. No outside vendors. Talk-in on VE3KSR, 146.97 MHz (–); VE3ZMG, 144.21 MHz (–) and 146.52-MHz simplex. For more information, contact Ray Jennings, VE3CZE, 61 Ottawa Cr, Guelph, ON N1E 2A8, Tel (519) 822-8342.

**Maple Ridge, BC:** Flea Market and Swap Meet, June 9 at Centennial Centre, 11944 224 St, just north of the Lougheed Highway 7. Sponsored by Maple Ridge ARC (MRARC). Opens 0900, 0800 for vendors. Admission \$1. Tables \$5. Talk-in on 146.80 MHz (–). For more information, contact MRARC, Box 292, Maple Ridge, BC V2X 7G2, Tel (604) 467-4511 or (604) 462-0201.

**Milton, ON:** 17th Ontario Hamfest, July 6, at Milton Fairgrounds. Sponsored by Burlington ARC. Flea market, displays, food, drink, camping. Opens at 0900. Admission \$5. Flea market sites free. For more information, contact Fergus Kyle, VE3LVO, 3037 South Dr, Burlington, ON L7N 3H1, Tel (416) 634-4156.

**Orillia, ON:** 24th Olde Tyme Radio Operators Reunion, June 20 at Couchiching Park. Sponsored by Orillia ARC. Begins at 1400. Dinner at the Sundial Inn \$16. For more information, contact Ken Robertson, daily on Trans-Provincial Net, 7.055 MHz, R R 1, Victoria Harbour, ON L0K 2A0, Tel (705) 835-2809.

**Prince Albert, SK:** 1991 Saskatchewan Hamfest, July 19–20. Sponsored by Northern Saskatchewan ARC. Flea market; transmitter hunts; CW, photo and QSL card contests; meetings; XYL program and more. Register early. For more information, contact Gordon Chappell, VE5JH, nightly on 3.753-MHz, 761–4th St East, Prince Albert, SK S6V 0K4.

**St. John, NB:** Flea market, June 8 at Dennis Memorial Community Centre, 330 Greenhead Rd. Sponsored by Loyalist City ARC. For more information, contact Allison, VE1LAS, Tel (506) 696-6374.

## The Canadian Radio Relay League, Inc La Ligue Canadienne de la Radio Amateur, Inc



The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct.

CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership. CRRL is noncommercial, and no one who could gain financially by the shaping of its affairs is eligible for membership on its Board.

CRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs.

A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada.

Membership inquiries and general correspondence should be directed to CRRL Headquarters, Box 56, Arva, ON N0M 1C0 Tel (519) 660-1200.

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VE2VW

\*Voting member, CRRL Board of Directors



# 10 dB on 10 Metres for Nothing

## Part 2: Two collinears = one Sterba Curtain.

By William Skidmore, VE3AUI

R. R. 1

Hyde Park, ON N0M 1Z0

Back about 70 years ago, a fellow named Sterba was thinking a lot about antennas, and he gave his name to what is probably the best simple directive antenna this side of a rhombic. The Sterba Curtain is simply two strings of in-phase half-wave elements, like the ones described in Part 1 of this article, but oriented one above the other by a distance of one-half wavelength.

To build the Sterba Curtain, construct another string of four half waves in phase, as described in Part 1, and place the two strings one-half wavelength apart. For the 10-metre band, a half wavelength varies, depending on if it's at the ends of an array (about 16' 6") or in the middle with no end effect (about 17'). You will now have to find some place to put the phase-reversing stubs for each set of elements. Since we want phase reversal at the ends of the elements, and we have these stubs just hanging there, let's hook the stubs together. It's not quite that simple, of course. You have to connect them with a half-twist. This way, the outer end of a lower element will feed the inner end of an upper one, and so on all along the line. To feed the two sets of elements, connect a half-wave of open wire line from the top centre insulator to the bottom centre insulator. Put a half-twist in this line as well. Feed the entire array at the bottom insulator using open wire line.

Very neat, and very effective too, because the current distribution with the system described here is about the best you can achieve with simple means. It gives a good clean pattern and maximizes the efficiency of the array.

This leaves only the ends to worry about. The ends probably gave Mr Sterba more pause for thought than anything else. He could have left the ends just hanging, and that would have worked OK. But Sterba was more clever. He had a good thing going for him, with the current excellent distribution just mentioned, so he simply folded a full wavelength of wire around the ends of the array. Since there's a half wavelength between the two sets of elements, he had two quarter wavelengths of wire left to use. He added these to the two ends of the array, feeding them with joined and twisted stubs in the manner already described. Thus, the last collinear element was broken in half, with a quarter-wave element at each end of the array. When Sterba was done, he had two sets of five half-waves in phase—ten half waves in all if you count the sum of the end sections.

The Sterba Curtain just described has an honest 10 dB of gain in two directions. It is bidirectional through the plane of the array—a pattern similar to that of a single quad loop. Horizontal directivity is about 55 degrees between the half-power points.

The array takes power away from the higher angles and places it at lower angles. The vertical angle of the main lobe is quite near the horizon. Of course, exact performance depends somewhat on the array's height above ground, nearby objects, etc. As with most antennas, the higher you go, the better the antenna seems to work.

### Feeding the Curtain

Now I know that many of you hate open wire line. You can't run it through the house or out the window like you can with coax. You can't bury it in the ground or paint it to match the colour of your siding. Open wire line is the way to feed this antenna, but if you simply can't stomach open wire line and antenna tuners, you can use a balun at the antenna. But let's get the open wire people on their way first.

Open wire feed is simplicity in itself. Connect the open wire line at the centre insulator on the bottom of the array. Run a convenient length to your antenna tuner, tune up and operate. The tuner must be able to feed balanced lines. If it's not designed for this, you can often get by with a balun between the antenna tuner and the open wire line. However, don't try this with high power unless you have a balun specifically made for this purpose. Your good balun could go up in smoke!

For most applications, any kind of open

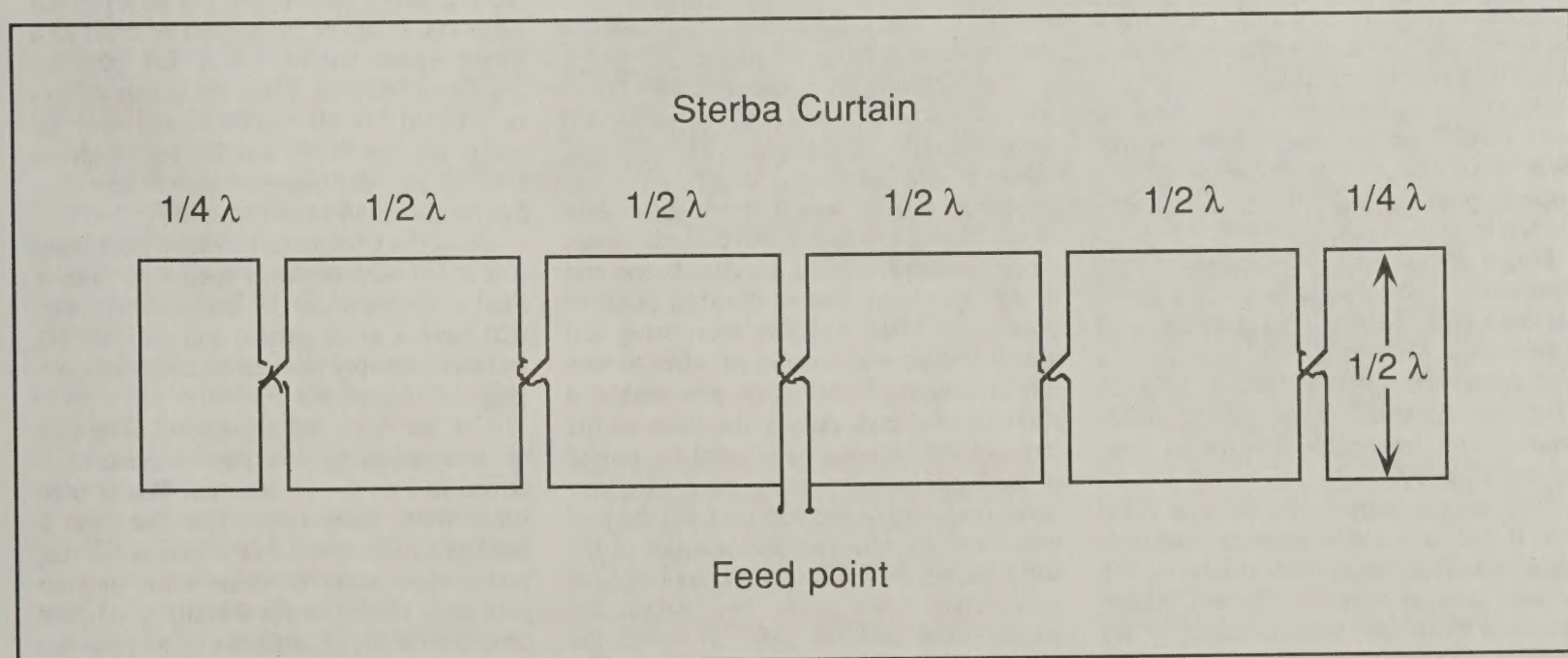


Figure 1—A Sterba Curtain for 10 metres only about 85 feet long—not much longer than a 40-metre dipole. This one yields an honest 10-dB gain.



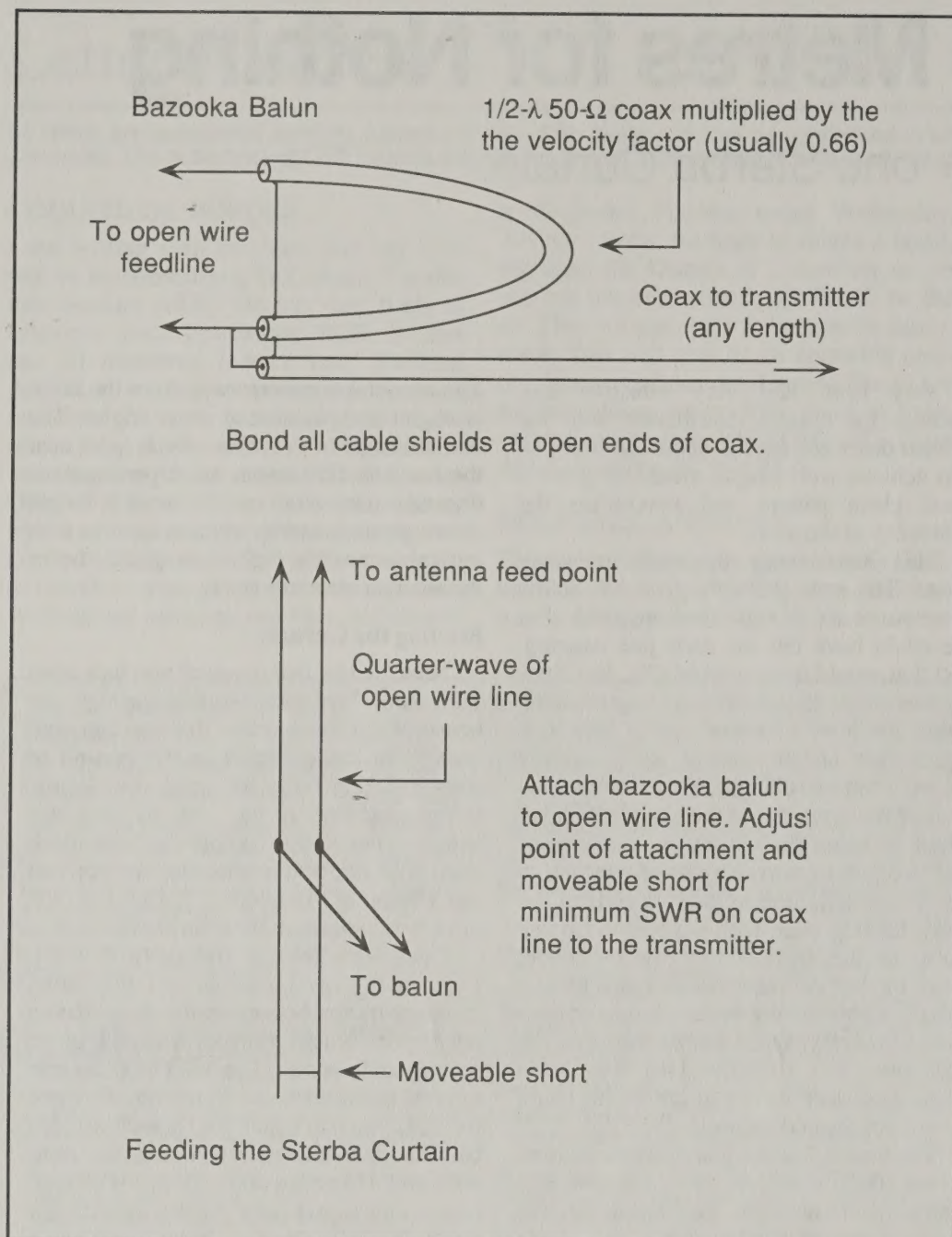


Figure 2—Ideas for amateurs who insist on feeding their Sterba Curtain with coax. For clarity, the spreaders on the open wire line have not been shown.

wire line you can find or make will work just fine. Good quality TV line works very well. There will be standing waves, but the losses are low, and you don't care. Your rig won't care either, because it only sees the SWR into the tuner. If the tuner is adjusted properly, your rig will think it's feeding a 50-ohm resistive load.

Forget about trying to match the feed impedance of the antenna. In the first place, you don't know what the impedance is, and in the second place, the losses incurred in a good open wire feed system, even at 28 MHz, are so small they will be undetectable with reasonable lengths of line. Just enjoy the DX.

Now, for you people who insist on using coax. If you have a good antenna tuner, you might get away with this: Make a 4:1 bazooka balun as shown in Figure 2. Attach the output to the feed point of the array. By adjusting the length of your feeder—or your coax if that's possible—you may be

able to find something that will present a perfect match to your transmitter.

If this doesn't work, the absolutely sure-fire method of feeding the Sterba Curtain with coax is as follows: Make a 4:1 bazooka balun as shown in Figure 2. Construct a section of open wire line just a little more than a quarter-wavelength long. About nine feet should do. Attach one end of the open wire line to the feed point of your array. Make a sliding short using two alligator clips and a scrap of wire. Scrape the insulation off the open wire line and short the far end. Attach the coax to the input of the bazooka balun, and the output of the bazooka balun to the open wire line, about one-third of the way up from the bottom. Feed the array a small amount of RF and measure the SWR on the coax line *with no antenna tuner in the line*. Adjust the sliding short and the point at which the bazooka balun is attached to the line. Go slowly, moving things a little bit at a time,

each time noting the effect on the SWR. A point will be found where the SWR drops to 1:1. Of course, you will need to have the bottom of the antenna very close to the ground to make these adjustments. Pulling the antenna up into position may change things a bit. Experiment. You'll soon figure out how your shorting points and attachment points will have to be moved to compensate for the change in height. Once all adjustments are made, solder your shorting points and your attachment points to prevent trouble later on.

### Who Should Build a Sterba Curtain?

If you already have a good beam up 50 or 60 feet, the Sterba Curtain, in its most-favoured directions, will be equal to your beam or perhaps a little better—a half an S-unit or so. Off the alignment of the array, the Sterba Curtain will not match the beam, of course. If you have a small tribander or mini-beam up 25 feet or so, a well placed Sterba Curtain will be much better in its favoured directions. If you are using a single vertical or a random wire antenna, a well placed Sterba Curtain can teach you what DX is all about. Depending on where you live, two Sterbas aimed in different directions may be all you need. A bi-directional Sterba in southern Ontario aimed at Europe would also hit the US southwest, and most of the South Pacific including Australia and New Zealand. Another Sterba aimed at central Africa would hit Japan and some of South America. Do you really need a rotary beam?

### Final Notes

In Part 2 of this article, we have discussed a 10-metre "five-over-five" Sterba Curtain—an antenna only somewhat longer than a 40-metre dipole and not much heavier. If erected in the clear, it is a superb performer. Of course, such an antenna for 20 metres would be twice as big. Maybe that's too big. But a Sterba need not be a full ten elements. It can be made with as small as a single square section, centre fed, plus the usual end sections. Thus, the smallest Sterba Curtain for 20 metres would only be about 65 feet wide and 33 feet high—a realistic size for many of us. Of course, a Sterba this small would have lower gain.

A Sterba Curtain can be used multiband if it is fed with resonant open wire line. A Sterba designed for 20 and fed this way will have a good pattern and gain on 10, and can probably be used as a general-coverage antenna on 40.

Get out there and experiment. The cost of this antenna—and the collinear described in Part 1—is minimal. You'll need some wire, some open wire line, and a handful of insulators, but if you're like us, you'll have many of these items in your junk box. If you've got a really good junk box, one of these antennas may cost you nothing. Try one of these antennas. Then write to us and tell us how it went. ■



# KENWOOD

## Compact Champion!

### TH-27A/47A

#### 2 m and 70 cm Super Compact HTs

Here is a great new addition to Kenwood's HT family — the all new TH-27A for 2 meters and TH-47A for 70 cm! Super compact and beautifully designed, these pocket-sized twins give you full-size performance.

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#### Optional accessories:

- **BC-14:** Wall charger for PB-13, 14
- **BC-15:** Rapid charger for PB-13, 14
- **BH-6:** Swivel mount • **BT-8:** Six cell AA Alkaline battery case • **HMC-2:** Headset with VOX and PTT • **PB-13:** 7.2 V, 700 mAh NiCd pack • **PB-14:** 12 V, 300 mAh NiCd pack • **PG-3F:** DC cable with filter and cigarette lighter plug • **PG-2W:** DC cable
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- **WR-2:** Water resistant bag.



- **Automatic offset selection (TH-27A).**
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## WARC-92 Program Available

Looking for a program idea for your next club meeting? CRRL International Affairs Vice President George Spencer, VE3AGS, and Bruce St. George, VE5ZN, have produced a slide show—complete with script on cassette tape—about WARC-92. The slide show explains the role of ITU over the years and tells how frequency allocations are made. It also explains the role of IARU at past WARC's and at WARC-92. You can borrow this slide show without charge. Just contact your nearest CRRL director (list appears on page 2 of this *QST Canada*), VE3AGS or VE5ZN.

### CRRL BOARD MEETING

□ By the time you read this, the CRRL Board of Directors will have met in Rexdale, Ontario, on May 31–June 1. This meeting was followed by a joint meeting with the CARF Board of Directors in Cobourg, Ontario, on June 2. We'll have a full report in July *QST Canada*.

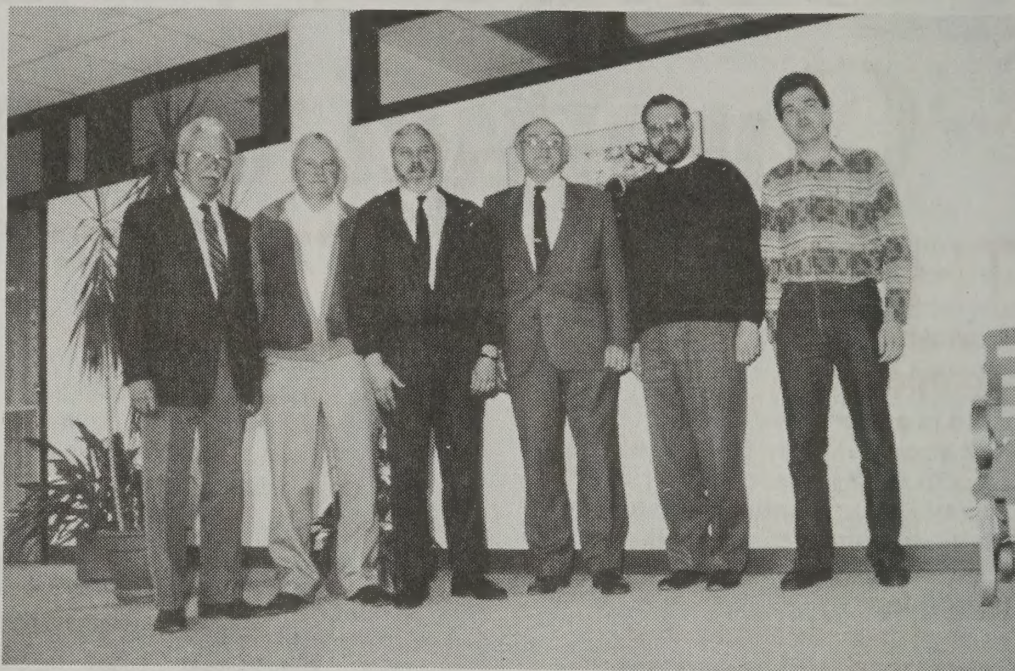
### HOBBYTRONICS IS BACK IN BUSINESS

□ CRRL has learned that Hobbytronics of St-Laurent, Quebec, is back in business. Hobbytronics was recently purchased by Progressive Electronics and Communications. New owner is Jean-Claude Hébert, VE2DRL.

### NEW PUBLICATIONS

□ What's new from ARRL? The *Spread Spectrum Source Book*. Spread spectrum is a high-tech mode that results in small parts of a signal being distributed over a wide band of frequencies. Conventional receiving techniques may be totally oblivious to the presence of spread spectrum signals, making it possible to conduct spread spectrum communications without further congesting frequencies occupied by conventional CW and SSB signals. Other books of interest to the high-tech amateur: an expanded version of the *Satellite Experimenter's Handbook* and the *Weather Satellite Handbook*. The 1991–92 edition of the *ARRL Repeater Directory*—which includes Canadian listings—is also available. Order through the CRRL Bookshelf, page 12 of this *QST Canada*.

□ What's new from DOC? DOC has just released a new publication that will be of interest to members of EMC committees in clubs across Canada. (EMC: that's Electromagnetic Compatibility—in plain language: RF interference.) *Solving Interference Problems* is available through the Minister of Supply and Services under



CRRL-CARF Merger? This committee is working on it. At a recent meeting in London, Ontario, from left to right: Clayton Bannister, VE3LYN (CARF); George Spencer, VE3AGS (CRRL); George Sanson, VE3GWS (CARF); Francis Salter, VE3MGY (CARF); Harry MacLean, VE3GRO (CRRL); and Dana Shtun, VE3DSS (CRRL).

catalog number C022–103/199E. Cost is \$6.50. If you order, don't forget the GST.

□ Of greater general interest, DOC has released a revised edition of the *Canadian Table of Frequency Allocations* which documents the allocation of radio frequency spectrum to various Canadian radio services. These allocations are based on provisions of the Final Acts resulting from various World Administrative Radio Conferences, convened by the International Telecommunications Union (ITU) up to 1990. The publication, 180 pages paperbound, includes definitions, ITU and Canadian allocations, general information, and a chart of ITU regions. It is available through the Canada Communications Group under catalog number CCG-P 025801. Cost is \$18.50 plus \$3.50 postage and handling. Again, if you order, don't forget the GST.

### SPECIAL EVENTS

□ Chatham-Kent (Ontario) Amateur Radio Club will operate special-event station VE3CRC from the Sertoma Highland Games, 1000–1700 EDT, Saturday, June 15. Look for VE3CRC on the bottom end of the US General portions of the 40-, 20- and 15-metre bands. A special certificate will be available. Chatham-Kent (Ontario) Amateur Radio Club will also operate special-event station VE3CRC from Chatham's annual Festival of Nations, 1200–2000 ED, on June 29–July 1. Look for VE3CRC on the bottom end of the US

General portions of the 75-, 40-, 20- and 15-metre bands. Again, a special certificate will be available.

□ To publicize "Pile O'Bones Sunday", Regina Amateur Radio Association (RARA) will be operating special-event station VE5NN, 1600 UTC, July 28 to 0400 UTC, July 29. Look for VE5NN on CW on 14.05, 21.05 and 28.05 MHz. Look for VE5NN on phone on 14.25, 21.25 and 28.25 MHz. For special certificate, send SASE and \$1 or one IRC to RARA, Box 153, Regina, SK S4P 2Z6.

□ Seven members of the Montreal-area West Island Amateur Radio Club hope to operate from St Paul Island, Friday, August 2, through to Tuesday, August 6, using the call CY9CWI. Plans are to run three stations on 160–10 metres. Look for CY9CWI on CW on 1.82, 3.68, 7.04, 14.05, 21.11 and 28.05 MHz, and on phone on 1.87, 3.795, 7.06, 14.195, 21.295 and 28.495 MHz. There will also be activity on the WARC bands. St Paul is located in the Cabot Strait, midway between Cape Breton Island and Newfoundland. Because it is an island (actually two islands) but not part of any Canadian province (it is administered directly from Ottawa), St Paul is listed as a separate DXCC country.

□ Planning to visit Toronto this summer—perhaps in mid-to-late August? If so, visit VE3CNE which will operate from the Arts and Crafts Building at the Canadian National Exhibition, Wednes-



day, August 14 until Labour Day, September 2. The Arts and Crafts Building is located just a few steps from the Dufferin Gates at the west end of Exhibition Place. If you aren't able to come to Toronto, look for VE3CNE on the air, 1000-2200 EDT daily on all popular modes, HF through to VHF. A special QSL card will be available.

## FIELD DAY

Field Day is often the last weekend in June, but not this year. ARRL Field Day will be held on fourth weekend in June, June 22-23. Please note these dates carefully. We know of at least one Canadian Amateur Radio club that started to make plans for the wrong weekend!

Field Day packages containing rules and sample log and dupe sheets are available from CRRL. If your club is currently affiliated with CRRL, you will receive a package automatically. If your club is not affiliated or has let its affiliation lapse, or if you are mounting an individual Field Day effort, you may obtain a Field Day package by writing to CRRL, Box 56, Arva, Ontario N0M 1C0.

## CQ VHF CONTEST CANCELLED

According to CQ's contest editor, K1AR, the CQ VHF Prefix Contest, scheduled for the weekend of July 12, has been cancelled. The magazine was unable to find a volunteer administrator for this event.

## SOUTH OF THE BORDER

Attendance at the 1991 Dayton (Ohio) Hamvention® was 32,176. This figure does not include several thousand youngsters admitted free to introduce them to Amateur Radio. Actual overall attendance was probably in the 35,000 range.

The FCC's Informal Working Group (IWG), of which ARRL is a member, has a new proposal for the 40-metre band: shift amateur operation down to 6.9-7.2 MHz worldwide, and move broadcasting up to 7.2-7.525 MHz worldwide. Accord-

ing to the W5YI Report, the proposal is felt to be "...a satisfactory compromise for non-government HF users."

It's official now: US amateurs will have to vacate the 220-222-MHz portion of their 220-225-MHz band by 0000 UTC 1991 August 28 (2000 EDT, 1991 August 27). We expect a good "going away" QSO party on 220-222 MHz before that date! Who will organize it?

AMSAT has filed its WARC-92 comments with the FCC. As expected, AMSAT is very concerned about FCC proposals to reallocate frequencies in the 2400-2450-MHz band for a new digital broadcasting service. Several amateur satellites including UoSAT OSCAR-11, AMSAT OSCAR-13, AMSAT OSCAR-16 and DOVE OSCAR-17 currently make use of these frequencies.

STS-37, the "all-ham" Space Shuttle mission with KB5AWP, N5QWL, N5RAW, N5RAX and N5SCW on board, spent an extra day aloft when poor weather prevented a safe landing. The crew took advantage of the unscheduled day in space to unstow their SAREX gear and make random QSOs for several hours.

James Haas, WT8Q, of Athens, Ohio, was recently charged with making contrived distress calls from the 1991 Dodge Caravan that bears his callsign. The calls, supposedly from a police officer in requesting assistance, were transmitted on police frequencies. According to several sources, Haas was transmitting when he was apprehended, and a cassette tape of emergency vehicle sounds was found in his van. If convicted, Haas faces up to ten years' imprisonment or a \$500,000 fine.

## INTERNATIONAL NOTES

If you visit the Cayman Islands (ZF), don't use the new bands at 10, 18 and 24 MHz. In Cayman, they haven't been authorized yet.

The Australian time station, VNG, was scheduled to move from 15 MHz to 16 MHz on May 8, after shutting down for a few days to retune the transmitter and

antenna to the new frequency. With VNG out from under WWV and WWVH, it should be a good propagation indicator for DXers moving between the 14- and 18-MHz bands.

Cuba has established a new Third-Class Amateur Radio Licence with a 5 wpm code test. Holders are allowed to operate low-power 160- and 80-metre CW, and can be readily identified by their distinctive CL prefixes.

The Netherlands Antilles (PJ) QSL Bureau continues to receive cards for Aruba. However, Aruba (P4) now has its own QSL Bureau. Address is Box 2273, San Nicolas, Aruba.

Congratulations to RCB, the Radio Club of Bolivia, which celebrated its 50th anniversary on March 1.

## NOTES FROM ALL OVER

If you're a CRRL member, you'll soon be receiving an invitation to take part in a special 12-day Amateur Radio tour of the Soviet Union and Czechoslovakia. Itinerary will include visits to Moscow, Leningrad and Prague. There will be opportunities to meet Soviet and Czech amateurs, take part in the Leningrad Hamvention, and visit both Radio Moscow and Radio Prague. This tour is being sponsored by AICEP, the Association for International Cultural Exchange Programs. Look for the special flyer in your mailbox soon.

Donations to Canada's Defence of Amateur Radio Fund (DARF), set up to assist IARU to defend our amateur frequencies at WARC-92, continue to arrive. The fund recently topped the \$15,000 mark with major donations from Dartmouth (Nova Scotia) Amateur Radio Club and Burnaby Amateur Radio Club. WARC-92 will be held in Malaga-Torreminas, Spain, on 1992 February 3-March 5, less than ten months away. If you have not yet donated, please do so now. Send your cheque to DARF, c/o Time Ellam, VE6SH, 107 Strathern Rise SW, Calgary, AB T3H 1R5. ■



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## Winnipeg Kiwanis Walk-a-thon

Winnipeg's 1991 Kiwanis Walk-a-thon was held on Sunday, May 5. It began at Norwood Community Club, went down Lyndale Drive, St Mary's Road, Kingston Row, Churchill Drive, Casey, Arnold, Osbourne, Stradbrook, across the Norwood Bridge, and back up Lyndale to the Norwood Community Club. The route was about 10 kilometres and about 100 people walked the entire route. A contingent from the local Star Trek club even beamed down for the event.

The Kiwanis Club had three checkpoints where walkers had their pledge cards initialled. Each checkpoint had a comfort station and water on hand. Buzz and Boomer, the Winnipeg Blue Bombers' mascots, along with Benny, the Winnipeg Jets' mascot, provided entertainment.

There was also some impromptu entertainment at the second checkpoint. One of the residents on Arnold came charging out of his house when the comfort station was set up. He babbled some gibberish, tipped over the comfort station and stormed back into his house. He came back ten minutes later and put the comfort station back up—on the opposite side of the street. He left us alone for the rest of the day.

Winnipeg Amateur Radio Club provided six amateurs for this event. Bob, VE4TX, manned the base station, Lorne, VE4LA, manned the first checkpoint, Frank, VE4FO, the second checkpoint, and Bill, VE4JR, the third. Lorne, VE4RLK, drove a van around the course, troubleshooting, and yours truly, VE4HK, bicycled the route three times, also troubleshooting.

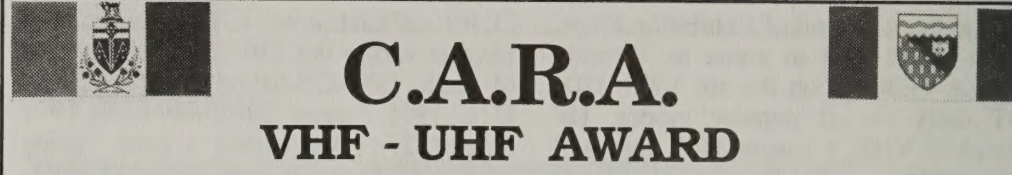
Aside from the incident with the comfort station, we had no problems whatsoever. We used the VE4CNR repeater on 146.76 MHz. Lorne, VE4LA, and Lorne, VE4RLK, each transported one walker back to the Norwood Community Club when they found they were unable to complete the course.

Each amateur was in position at 7:45. The first walker left Norwood Community Club at 8, and the last person returned at 11:15 when the net was shut down. Thanks to the amateurs mentioned above for another fine public service effort. Honourable Mention to Ben, VE4WE, who assisted at the second checkpoint. —*Dick Maguire, VE4HK* ■

## CLARA Certificate

1991 is CLARA's 25th Anniversary—a good year to earn a CLARA Certificate. CLARA members work 12 YLs in six Canadian call areas, maximum five VE3s. Other Canadians work 10 YLs in five Canadian call areas, maximum four VE3s. US and DX work five YLs in three Canadian call areas, maximum two VE3s. QSL cards must be in your possession. Send certified log and \$4 to Certificate Custodian Diane Ernst, VE1FW, R R 1, Big Bras d'Or, NS B0C 1B0. ■

## CARA VHF-UHF Award

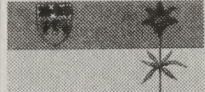




**C.A.R.A. VHF - UHF AWARD**

C.A.R.A. SALUTES

IN ACHIEVING

IN WESTERN CANADA DURING

Calgary Amateur Radio Association (CARA) has always been proud to be in the forefront of Amateur Radio achievements, including very important achievements in VHF-UHF communications. Now, to recognize some of these achievements, Calgary Amateur Radio Association is sponsoring awards for VHF-UHF contesting. Hopefully, this award will create greater awareness of our radio frequencies above 50 MHz, promote a spirit of competition in contesting, and promote fellowship among radio amateurs. Here are the rules for the CARA VHF-UHF awards:

1. The awards will be based on and issued for the ARRL VHF contests held three times each year: the January VHF Sweepstakes, the June VHF QSO Party, and the September QSO Party.
2. The rules to be followed will be those published in *QST* prior to each contest.
3. The awards will be available to competitors in the western provinces and the territories, namely British Columbia, Alberta, Saskatchewan, Manitoba, Yukon Territory and Northwest Territories.
4. The awards will be issued on the basis of the highest score submitted from all competitors in each of the three contests. To qualify for an award, logs must be submitted to ARRL and CRRL so that scores will appear in *QST* and *QST Canada*.
5. There will be two (2) award categories: one for HIGH SCORE SINGLE OPERATOR and another for HIGH SCORE MULTIOPERATOR. There will also be a TOP SINGLE OPERATOR award for each band where significant competition or effort was evident. There will be no single-band awards for multioperator entries. Single and multioperator categories will be based on ARRL definitions as published in *QST*.
6. "Rover stations" moving between grid squares will be awarded a special certificate based on the combined total score submitted to ARRL and CRRL. A separate log must be submitted for each grid square from which the contacts were made.
7. There are no incentives for QRP at this time. Calgary Amateur Radio Association is always open to ideas on how to improve this award or promote VHF-UHF activity in Western Canada. —*Ken Oelke, VE6AFO* ■

## Update: Defence of Amateur Radio Fund

The Defence of Amateur Radio Fund (DARF) was established to help IARU defend our amateur frequencies at WARC-92. DARF thanks the following who recently made donations: *Clubs:* Burnaby Amateur Radio Club, Dunnville Amateur Radio Club, Dartmouth Amateur Radio Club, Burlington Amateur Radio Club, Calgary Amateur Radio Association, Halifax Amateur Radio Club, Club Radio Amateur de Granby VE2CRG, Niagara Peninsula Amateur Radio Club. *Individuals:* Colin Kopp, VE7CPU; Ernest Barthe, VE1BKK; George Lubrick, VE3GDL; Terry Lubrick, VE3TLX; John Mokren, VE3BFY; Donald Kramer, VE3SIM; Margaret Kramer, VE3YMI; Noel Eaton, VE3CJ; Victor Mozarowski, VE3AIA; Martin Rosenthal, VE3MR; Norman Lawton, VE3ON. As of 1991 May 15, the fund stood at \$15,679.48. If you have not yet contributed, please mail your cheque to DARF, c/o Tim Ellam, VE6SH, 107 Strathern Rise SW, Calgary, AB T3H 1R5. ■



# Selection



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| ● Michael VE7CIP | ● Al VE7DL    |

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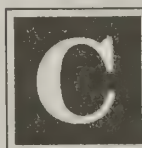
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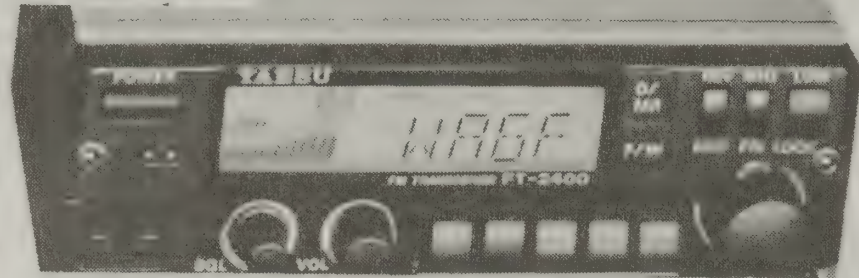
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# FT-2400H

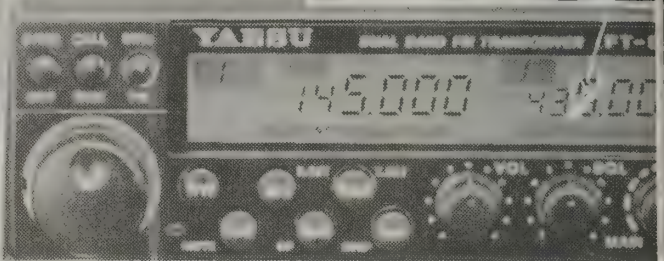
## NEW!



### FT-2400H VHF FM PAGING TRANSCEIVER

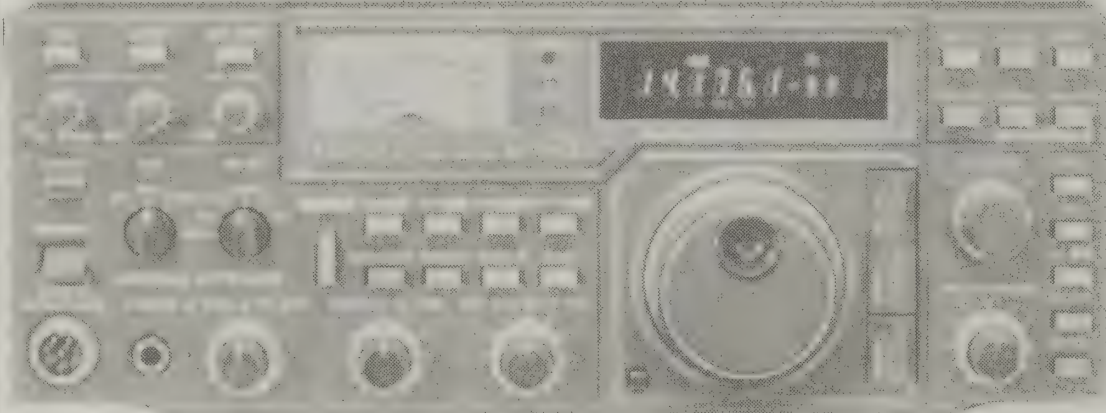
The FT-2400H is a very rugged VHF 50 Watt FM transceiver that has a backlit microphone. The FT-2400H comes with Subaudible tone encoding, while the addition of the FTS-17A will allow Subaudible tone decoding. With the addition of the FRC-6, you can add selective paging. Once you have programmed your special 3 digit code, then your receiver stays quiet until it hears the same 3 digit DTMF code.

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- All HF Band Transceiver/General Coverage Receiver
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## IC-751A

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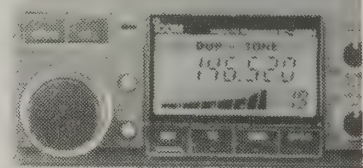
No ground radials are needed and its balanced, shielded feed-loop isolates the antenna from the feedline. This ensures that your signal is radiated by

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The inherent hi-Q of the IsoLoop makes it like a very sharp tunable filter that radiates. The narrow bandwidth suppresses harmonics from your transmitter, and also attenuates out-of-band signals that could overload your receiver.

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## IC-228A



### IC-228A 25 Watts VHF

The IC-228A is the lowest priced 2M mobile that you can find. It has 10 memories and at DTMF ready standard!

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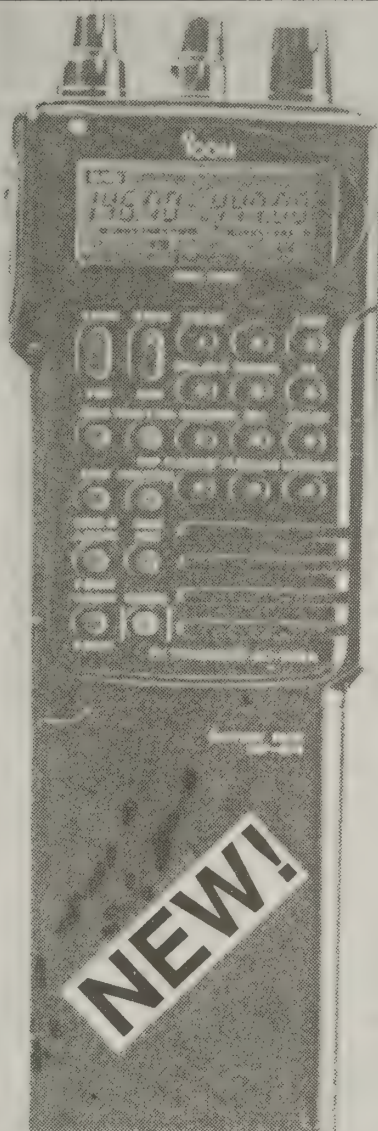


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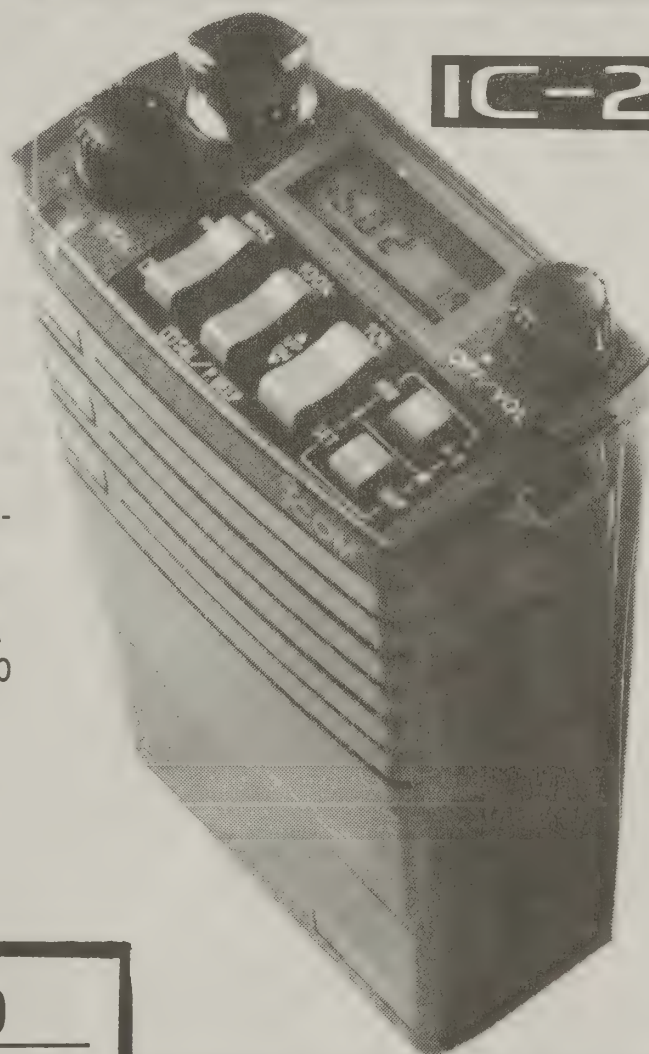
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## R5

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- The unique counter-  
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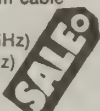
## AR-270

**NEW DUAL BAND  
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Antenna Compendium Vol.1	11.25	1.10	4010	<input type="checkbox"/>
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Hints and Kinks	9.00	1.10	5030	<input type="checkbox"/>
Solid State Design	13.50	1.10	5040	<input type="checkbox"/>
Design Notebook, W1FB	11.25	.80	5050	<input type="checkbox"/>
Spread Spectrum Sourcebook	22.50	1.30	5060	<input type="checkbox"/>

## OPERATING

Operating Manual	17.00	2.25	5500	<input type="checkbox"/>
Complete DXer 2nd Edition	13.50	1.10	5510	<input type="checkbox"/>
DXCC Companion	6.75	.80	5520	<input type="checkbox"/>
Low Band DX	11.00	1.10	5530	<input type="checkbox"/>
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Gateway to Packet Radio 2nd Edition	13.50	1.10	6000	<input type="checkbox"/>
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**How to order:** Please check (✓) the box at the end of the line for each item you want. Add costs and the amounts shown for postage. Then add 7% GST to your total. Ontario residents only: Add 8% provincial sales tax on total of costs and postage (but not on GST) for all items marked (OT). Thank you.

Name: \_\_\_\_\_ Call: \_\_\_\_\_ Total cost + postage \$ \_\_\_\_\_

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## The CRRL Field Organization Forum

### SECTION MANAGER ELECTION NOTICE

To all CRRL members in the British Columbia and Ontario sections: You are hereby solicited for nominating petitions pursuant to an election for Section Manager. Because of space limitations, a full election notice will not be reproduced here. Nominating petitions will be received at the CRRL Headquarters office until 1600 EDT 1991 June 7. For additional details, see the 1991 April issue of *QST Canada* or contact CRRL Headquarters. —Jack Strangleman, VE3GV, Field Services Manager

### REPORTS FOR MARCH 1991

**Alberta:** SM: Don Wilcox, VE6CG; STM: VE6AKY; SEC/TC: VE6AFO; OO: VE6TY. No report available.

**British Columbia:** SM/SEC: Ernie Savage, VE7FB. British Columbia Public Service Net (BCPS, 3729 kHz) Manager Ford, VE7DDF reports January check-ins: high—225, low—76, total 4201. British Columbia Emergency Net (BCEN): Manager Ferdi, VE7EJU, reports 865 check-ins with QTCs up 351 from February. Net Manager Ford, VE7DDF, mailed in 1990 BC Net Report. Average for each month was 158, total for the year was 5728. November was the biggest month for check-ins with 6778. Burnaby ARC's Swap n' Shop is held on VE7RBY, every Monday at 1930 PST/PDT. At 2000, Wally, VE7CGT/VE7QST reads upcoming events and bulletins. Stay around and increase the number of check-ins which are now fifty and up. My son, James Savage, has been my man Friday for years, keeping the SM's office in order. Earlier, I told him that the day he obtained his ticket, I'd make him A/SM! He had been studying for years, but that was something to go for. In November he became VE7HJS (Harold James Savage).

**Manitoba:** SM: Bill Crooks, VE4JR; ASM: VE4IX; STM: VE4JA, SEC: VE4VR; NMs: VE4LB, VE4IX, VE4TE. Not too much to report this month. Members of Selkirk ARC now have their repeater up and running. Access is on 146.73 MHz (—). Callsign is VE4SLK. Dave, VE4PN, advises that the antenna is at a temporary location, but when complete, will be permanently mounted on top of a water tower, and should give good coverage of the Interlake Region. There will also be a link with a receiver in Winnipeg to help with the coverage. Winnipeg ARC's training class will be completed at the end of March, and hopefully, we will hear some new calls on the air. Bob, VE4ADE, and Tom, VE4AKI, tell me that a number of the class requested code training as well as theory. With the conflict in the Gulf coming to an end, it brings to mind that each area should have some plans for emergency communications, and that emergency exercises should be held on a regular basis. Your SEC can be contacted for information on how to set up a local emergency communications plan. 73!

**Maritimes-Newfoundland:** Acting SM: Carl Anderson, VE1UU; STM: Mel Lever, VE1VX; BM: Brent Taylor, VE1JH. No report available.

**Reports invited:** CRRL Section Managers (SMs) and their Section-level assistants coordinate traffic handling, emergency communications and bulletin service across Canada. Your SM (name and address appears on page 2 of this *QST Canada*) welcomes reports of individual and club activities for publication in this column. Activities do not have to be related to the CRRL Field Organization or to CRRL.

**Ontario:** SM: Larry Thivierge, VE3GT; BM: VE3GSA; SEC: VE3GV; STM: VE3CYR; TC: VE3EGO. Leamington Sun Parlour ARC is set to join CANWARN in the tri-county area. They will be joining Border City, Windsor, Chatham-Kent, Sun Parlour retirees, Wallaceburg and Lambton County ARCs—clubs already participating in this most worthy of public service endeavours. VE3EFX has worked 141 Canadian prefixes with 135 confirmed. VE3OSQ has set up a packet node, LANARK, on 145.01 MHz in Blakeney. It also has a BBS, VE3OSQ-1. VE3HFS has set up a packet cluster BBS in Thunder Bay, designed as an aid for working DX. Packet cluster is a relatively new concept capable of dispersing DX information to connected stations automatically, along with storing for future reference. Along with DX information available, it is a BBS capable of all the ordinary chores of a regular BBS. Repeater VE3TOM is celebrating its 12th anniversary this year. VE3XJ's RTTY DXCC totals stand at 216/206. Scarborough ARC has just celebrated its 45th anniversary. Congratulations! VE3NBC is the North Bay Amateur Radio Club's KA-node and PBBS. VE3NBC-1 is a small-scale PBBS used primarily for posting personal messages and short bulletins of interest to North Bay amateurs. VE3NBC-7 is a KA-node which serves as a vital link between Sudbury's VE3OTH BBS, and BBSs in the rest of the province. The VE3OTH-1 BBS is now equipped to operate on HF, VHF and landline simultaneously! Ottawa ARC's new membership chairman is VE3WMB. VE3SKE and VE3TRH are new members of the Ontario Trilliums. VE3DXZ has completed 30 years as a member of YLRL. Our Section Bulletin Manager, VE3GSA, is enjoying his new 286 computer, set up complete with a colour display and a 24-pin printer. Thunder Bay repeater VE3YQT has been upgraded with a new controller. It can be accessed on 147.66 MHz (+). A link is being set up to the Mount Baldy site. Members of Lakehead ARC and guests hold breakfast every Saturday morning at 1000 at the Blue Parrot Restaurant. The Sudbury ARES group has a breakfast meeting every month at the Blarney Cock Restaurant. The last such meeting was attended by 23 amateurs. London ARC held another successful annual banquet. Highlight of the evening was the announcement of the club's Amateur of the Year: VE3NRJ. Don't forget the Central Ontario Amateur Radio Fleamarket, to be held at Bingeman Park in Kitchener on June 1. Talk-in is on VE3KSR, 146.97 MHz (—) and VE3ZMG 145.21 MHz (—). I say this every year: bonus points can be earned by sending your Section Manager, VE3GT, or Section Emergency Coordinator, VE3GV, a message during Field Day. Good luck to all Field Day participants, and above all, have fun.

**Quebec:** SM: Harold Moreau, VE2BP; STM: VE2EDO; SEC: VE2LYC; BM: VE2ALE. With the return of summer, clubs will resume sum-

mer activities with Field Day on June 22–23. It is with regret that I announce the passing of John, VE2IS. Après les contacts visuels à Sorel, ce sera les QSOs, à la occasion du Field Day le 22–23 juin. À tous je souhaite une très belle saison festive et bonne vacances.

**Saskatchewan:** SM: Joan Lloyd, VE5JML. ARES is alive and well in Saskatchewan. SEC Bob, VE5FY, reports around 120 check-ins each month. ARES meets each Sunday on 3780 kHz at 0900 local time, and welcomes participation by all amateurs. Our thanks to ECs in the following areas for their many years of service: Al, VE5AQ, Moose Jaw area—25 years; Ekke, VE5AFQ, Regina—three years; Murray, VE5ACI, Yorkton area—ten years; Jim, VE5EB, Prince Albert area—four years; and John, VE5MP, Saskatoon area—many years! Congratulations and thanks to all instructors, Elmers and designated examiners around the province for their time and encouragement in helping new amateurs get their licences. Thanks to their efforts, we have many fine new amateurs on the air. Regina ARC is formulating plans for the 4th Annual Craven Fleamarket, to be held at Craven in early June. Listen on the nets for details. Congratulations to the 40 amateurs from Saskatoon and area who set up and staffed the Amateur Radio display at the Western Development Museum in Saskatoon in February and March. A fine display, and a great public relations promotion for Amateur Radio! To the amateurs who attended the Dayton Hamvention: Hope you had fun! You'll probably erase the provincial debt with your purchases! 73. ■

## Silent Keys

Conducted By Ray Staines, VE3ZJ

It is with deep regret that we record the passing of these amateurs:

VE1BHS, Lee Nolan, Amherst, NS  
VE3QC, George Sanders, London, ON  
VE6MJ, Lloyd Richards, Edmonton, AB  
VE7DMS, Jim Stuart, Kamloops  
VE7JJ, Elmer Winton, New Westminster, BC  
VE1BHS was listed as VE1BBS in April *QST Canada*. We apologize for this error.

**Note:** Silent Key reports sent to *QST Canada* must include name, address and callsign of the reporter. To avoid unfortunate errors, reports are confirmed only through acknowledgement from the family of the deceased. Thus, those who report a Silent Key may not receive an acknowledgement from *QST Canada*. ■



## Fall Protection on Towers

For several years now, club bulletins have been carrying a funny story about a fellow who slips from his tower. When he reaches bottom, the counterweight he was using comes off the rope and hits him on the head. We laugh—but we all know that a real slip on a tower is no laughing matter. Here's a tip from Technical Services Division, Occupational Health and Safety, Labour Canada. It has to do with accidental opening of the lanyard snap hook on a safety belt. Study the diagrams carefully and you'll see how easily this can happen if you snap the hook on the wrong way. Then be aware and do it the right way. It may save your life.

### What happened?

An experienced installer was caulking a communications antenna at a height of 100 metres above the ground. As required, he secured his two-metre lanyard to a retaining ring on the antenna using standard hooks. When it became necessary for him to move, he pulled on the lanyard which suddenly separated from the retaining ring. He fell onto a wire mesh platform located a few metres below the antenna. Had it not been for the platform, he would have fallen to his death.

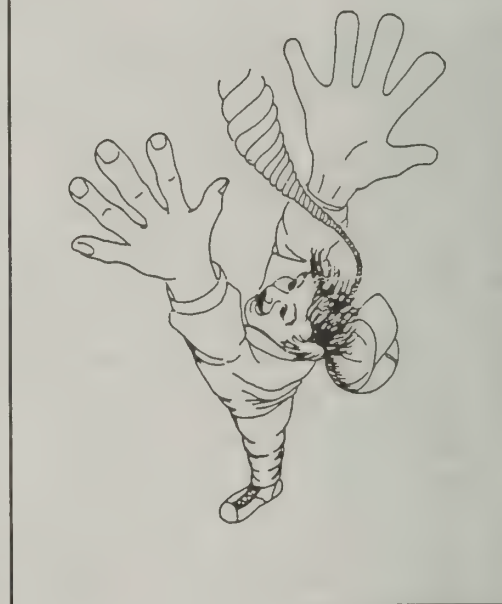
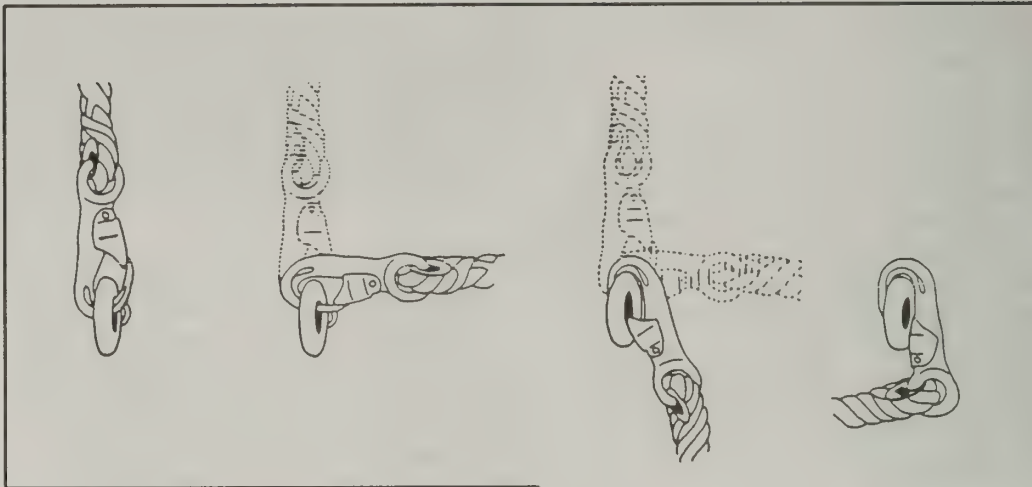
### To prevent it from happening to you...

Couple the snap hook to the anchor point (eye bolt, dee ring, etc). With a rolling action, manipulate the snap hook around the anchor point and determine if the keep-

er can be depressed by the shank of the eye bolt or by the opposite side of the eye bolt or dee-ring. Find an anchor point that does not allow this to happen.

### WHAT ANTENNA LENGTH?

Thinking of putting up a random-wire antenna for the HF bands? Some lengths are easier to load up than others. 90 feet against a good ground works well. It's approximately  $3/4$  wavelength on 40 metres. If you play with the length, you can often load into it without an antenna tuner. On 75-80 metres, it's  $3/8$  wavelength. Insert a variable capacitor between the end of the wire and the output of your transmitter. Adjust the capacitor for minimum SWR. A shorting switch across the capacitor gives you a two-band antenna. —VE3GRO ■



## CANADIAN LADIES AMATEUR RADIO ASSOCIATION



We invite all V/Ls in our reading audience  
to join our coast-to-coast organization.  
CLARA members can be heard weekly from

September to June  
Tuesdays at 1700 UTC  
14.120 MHz  
Come and join us!

For registration information, please write to CLARA Treasurer  
Muriel Foisy, VE7LQH, R. R. 1, Pender Island, BC V0N 2M0

## Ham-Ads



Advertisements must pertain to Amateur Radio. For individuals or firms offering products or services for sale, the rate is \$0.50 a word. This is reduced to \$0.25 per word for those seeking to dispose of or acquire personal station equipment. Telephone numbers count as one word. No charge for postal codes. Unless specified, a Ham-Ad will appear in the next available issue of *QST Canada*. Send Ham-Ads to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

**UNWANTED:** Unwanted ancient modulation (AM) equipment and components welcomed here. Eddy Swynar, VE3CUI, 3773 Concession Road 3, R R 8, Newcastle, ON L1B 1L9.

**BRITISH ELECTRONICS SERVICE/INSTALLATION ENGINEER** (City and Guilds qualified) experienced in repair and installation of TV, SMA TV, video recorders, CCTV, HF and VHF communications equipment. design, construction and installation of AV distribution systems and equipment. Also experienced with small MF and VHF broadcast stations as transmitter/studio engineer and DJ. Seeking employment in Canada. Age 34. Holder of full British amateur licence, full British driving licence, 20 years experience in radio and electronics. S. G. Fellick, G0GUS, 41 Rosedale Road, Forest Gate, London E7 8AU England.





Amateur Radio operators use solar and geomagnetic information for many aspects of activities related to radio propagation. A Solar-Terrestrial Workshop will be held in Ottawa, Canada, on 1992 May 18-22, at which representatives from around the world who have an interest in solar and geomagnetic data will discuss current advances in the field. The information gathered in this survey will be used to discuss the need and uses of such data by the Amateur Radio community.

Please complete and send to:

**Richard Miller, VE3CIE**  
**R. R. 1**  
**Hillsburgh, ON**  
**Canada N0B 1Z0**

Comments: \_\_\_\_\_

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# Solar Geomagnetic Data

**Survey  
for  
Amateur Radio**



# SURVEY: SOLAR/GEOMAGNETIC INFORMATION FOR AMATEUR RADIO

## Applications

Amateur Radio operators use both solar and geomagnetic information to understand current propagation conditions and forecast future conditions. There are many different areas of Amateur Radio activity in which this information is used:

**Please check the boxes which apply to you.**

- ☐ Understanding band conditions
- ☐ MUF prediction
- ☐ DXing
- ☐ Contesting
- ☐ Emergency operating
- ☐ Rag-chewing
- ☐ VHF aurora
- ☐ Amateur satellite program
- ☐ SWling
- ☐ Other (specify) \_\_\_\_\_

How would you describe the usefulness of solar and geomagnetic data to your Amateur Radio activities?

**Please check the box which applies to you.**

- ☐ Essential
- ☐ Desirable
- ☐ Occasionally useful
- ☐ Unnecessary
- ☐ Other (specify) \_\_\_\_\_

What types of information do you find most useful?

**Please check the boxes which apply to you.**

- ☐ Solar Flux
- ☐ A Index
- ☐ K Index
- ☐ Sunspot numbers
- ☐ Solar activity summary
- ☐ Geomagnetic activity summary
- ☐ Other (specify) \_\_\_\_\_

## Sources

Where do you obtain your solar/geomagnetic information?

**Please check the boxes which apply to you.**

- ☐ ARRL transmissions
- ☐ EMR/GSC bulletin board
- ☐ EMR/GSC monthly forecast
- ☐ EMR/GSC telephone voice message
- ☐ SESC bulletin board
- ☐ SESC preliminary report and forecast
- ☐ SESC telephone voice message
- ☐ WWV broadcasts
- ☐ Other (specify) \_\_\_\_\_

## Utility

What forecast period is most useful to you?

**Please check the boxes which apply to you.**

- ☐ 0-24 hours in the future
- ☐ 1-15 days in the future
- ☐ 1-27 days in the future
- ☐ Other (specify) \_\_\_\_\_

How frequently do you require or use solar/geomagnetic information?

- ☐ Once a month
- ☐ Once a week
- ☐ Once a day
- ☐ Twice a day
- ☐ Other (specify) \_\_\_\_\_

At what time of day do you require the information?

- ☐ 00-06
- ☐ 06-12
- ☐ 12-18
- ☐ 18-24 UTC

How does the solar/geomagnetic data satisfy your requirements?

**Please check the boxes which apply to you.**

Solar information:

- ☐ Too specific and too detailed
- ☐ Meets requirements
- ☐ Not specific enough
- ☐ Varies, inconsistent
- ☐ Other (specify) \_\_\_\_\_

Geomagnetic information:

- ☐ Too specific and too detailed
- ☐ Meets requirements
- ☐ Not specific enough
- ☐ Varies, inconsistent
- ☐ Other (specify) \_\_\_\_\_

Do you use the solar/geomagnetic data as input to a computerized propagation program? ☐ yes ☐ no

If yes, please indicate the name of the program: \_\_\_\_\_

Do you use the solar/geomagnetic data to:

- ☐ Calculate the MUF?
- ☐ Determine band conditions
- ☐ Plan operations?

## Educational

Education about using solar/geomagnetic data in Amateur Radio can best be provided through:

**Please check the box which applies to you.**

- ☐ Printed materials
- ☐ Audio tape course
- ☐ Videotape course
- ☐ Workshops
- ☐ Other (specify) \_\_\_\_\_



## 7O8AA—ou la Quête de l'Impossible

Le rêve s'insinua dans nos esprits en mars 1983...

L'idée d'une activité en 7O (République Populaire Démocratique du Yemen—RPDY) avait fusé, lors du premier passage de Hassan, J28AA, Directeur Général de l'Office Public des Télécommunications de la République (OPT) de Djibouti, à Bordeaux...

Et les années passèrent. L'enthousiasme du début laissa, peu à peu, place au doute dans l'esprit de beaucoup, mais imperturbablement J28AA et F2VX continuaient. Comme toute quête, le but est difficile à atteindre, et ce dans le silence absolu. Plusieurs fois nous avons été très près du but. Toutes les solutions envisagées (en 1988, activité depuis les îles du Golfe d'Aden) avient à chaque fois un veto des autorités locales.

Mais la ténacité, la patience, le sens inné de la négociation de Hassan, J28AA, seront enfin récompensés: Juillet 1989, Hassan informe F2VX: cela bouge. Septembre 1989, cela se précise. F2VX souhaite être accompagné par F6EXV, et Paul entre dans le circuit. Le 23 octobre 1989, les demandes officielles de visa et licences sont transmises au Yemen, via J28AA et l'OPT... et c'est de nouveau le silence.

15 janvier 1990, le parlement de RPDY vote l'éventualité de l'utilité de l'émission d'amateur, et charge le directeur général de Yemen Télécommunication Company (YTC), M. Moule, d'en étudier le principe. L'idée de base est de mettre en place une législation avant de donner des autorisations. YTC envoie une mission à Djibouti auprès des services de J28AA pour se documenter. Nous nous tenons prêts avec Paul à partir... nous sommes en février.

L'activité "fantôme" de IIRBJ en tant que 7O0A entrave nos projets. YTC nous demande d'intervenir auprès de l'IUT à Genève, de l'IARU et de l'ARRL.

Les demandes de licences, elles, continuent à s'empiler à Aden (Allemagne, Autriche, Italie, Japon, URSS, Angleterre, USA) sans succès.

Sur la base d'une "démonstration" avec "formation" du personnel de YTC, installation d'une station complète offerte ensuite à la RPDY, et sous le couvert de l'OPT, de Djibouti comme garant, la coopération des français est acceptée. Nous sommes fin mars 1990. J28AA insiste sur le nécessaire secret qui doit continuer. Cela entraînera quelques prises de position parfois mal perçues.

Paul, F6EXV, se charge de trouver une station. Notre premier contact sera le bon



Anwhar, 7O7AA, et Gérard, F2VX/7O8AA: "le professeur". (Photo F2VX)

et nos remerciements ainsi que ceux de YTC ne sauront suffire à mesurer l'engagement à nos côtés de messieurs Satai et Netange pour Kenwood France. Sans même connaître la destination ni l'usage prévu de l'équipement, Kenwood France offre un transceiver TS-950 digital et un amplificateur TL-922, et se chargera de tous les frais et formalités de livraison, dès qu'ils auront connaissance de la destination finale. Paul, F2YT, et Josiane, FD1MVT, Ges Nord nous offrent les 100 mètres de câble pour le rotor d'antenne, ainsi que 100 mètres de coax et tout l'outillage (pinces, outils, fers à souder, contrôleur, prises, etc... même la pendule pour la future station du club). Les membres du Bordeaux DX Groupe s'occupent des antennes 40/80, des manipulateurs électroniques, F6AOJ nous propose les calculs informatiques de propagation, dès que la date du départ sera connue, F6AJA nous dessine une carte azimutale centrées sur Aden, et Paul commande une beam FD3 de Fritz, un tos-mètre/watts mètre, et un rotor Ham. Tout semble OK. F2VX et F6EXV s'occupent des billets d'avion... Nous sommes en mai, et sur le point de partir. L'activité surprise de 7O1AA bouleverse tout... YTC ne délivre pas de licence... les divers ministères du Yemen s'en mêlent... la notion d'émission d'amateur est remise en question... Hassan, J28AA, doit faire preuve de beaucoup de diplomatie pour que le dossier des français ne soit pas classé, et il

nous demande de la patience.

Le 22 mai 1990, naissance de la nouvelle République du Yemen, qui remplace la RPDY, et la République Arabe du Yemen (RAY)—7O et 4W pour nous. Les deux administrations de télécommunications fusionnent. Que va devenir notre dossier? Sur l'extrême insistance de J28AA, M. Moula, directeur de YTC confirme par télex le 23 juin, que nous pouvons venir à Aden, et que des licences nous seront données à notre arrivée. Il ne nous manque plus que les visas.

Nous faisons expédier tout le matériel à Aden, et nous prenons nos premiers billets d'avion. Nous devons les modifier chaque semaine pendant tout le mois de juillet... Air France n'y comprenait plus rien. Nous non plus d'ailleurs. Partons, partons pas? Finalement, le 23 juillet nous sommes sur le vol pour Djibouti... mais sans visa d'entrée pour le Yemen.

À Djibouti, Hassan, J28AA, nous accueille à l'aéroport. Installation à l'hôtel et première attente pour un rendez-vous avec le consul général du Yemen. Nous séjournons du mardi au samedi à Djibouti. Quelle joie, et quel soulagement lorsque le jeudi 26 juillet le consul général du Yemen nous rend nos passeports chargés du visa de la République du Yemen, valable un mois, et avec la mention "mission officielle". Enfin nous étions au bout de cette conquête. (...à suivre) —Gérard Debelle, F2VX/7O8AA, Bordeaux, France



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**C.O.D.**



## Situation and Strategy

Jerry Wellman, WB7ULH, in his column in a recent issue of *Worldradio*, has some interesting comments on planning strategy. He says:

"When the emergency or exercise happens, you'll need to make some decisions. You could panic, but that's not a good decision to make. Break the emergency picture into two: situation and strategy.

"An ideal method is to have two identical maps such as county road maps with clear plastic overlays. I've seen these maps mounted on plywood and hinged for easy use, transport and storage. On one map, you plot the situation, be it the search, power outage, flood, earthquake or bike race. This is the map for your facts. It's your overview of what your communications must support. If the disaster coordinator says, 'Cover these hospitals....,' you mark them on this situation map. When the floods cut off roads, you enter the information on this map.

"A quick look will give you an idea of where to place your resources as well as clues to distance, obstacles to avoid and routes to use. With dry-erase marker or wax pencil, you can colour-code the needs. When a station is manned, it is marked in a certain colour. Each network can have a different colour. Then, for instance, a quick look will tell you that hospital B is on the 146.88-MHz repeater while hospitals C and D are on 147.54-MHz simplex. This is your situation map.

"The strategy map is your scratch pad. While the situation map grows and changes with 'emergency facts', your strategy map shows your communications resources and gives you the ability to play 'what if...'.  
 "With a couple of clear plastic overlays, this map can be very handy. Some of your plastic overlays could be set up in advance. One overlay could indicate hospitals and medical providers. Another could show airports and major highways. Yet another could show all active Amateur Radio operators in the county, or, in a different colour, all packet stations.

"What an impact! You show up at the emergency control centre with two maps, one showing your communications resources. You've got the big picture—and you are able to make good decisions quickly. No time will be wasted trying to figure out who has packet or where people live when they check in.

"Prepare a couple of maps now and volunteer to be net control for your next exercise. Get your situation map and your strategy map ready. You'll turn some heads when you show up prepared and

looking professional. Remember: volunteers are many, but volunteer professionals are scarce."

### SALT SPRING ISLAND GROUP

Dave Massy, VE7DWA, keeps me well posted on his group's activities in Salt Spring Island. Recently, he sent me a clip-

ping from his local newspaper. It concerns the construction by his group of a new communications tower on the island. The clipping reads:

"Groundwork was completed Sunday for one of Salt Spring's two communications links in the Island Emergency Program.

## Field Organization Reports March 1991

### CRRL Section Emergency Coordinator Reports

Reports were received from the following SECs (DECs and ECs reporting to SECs are listed in brackets) denoting a total ARES membership of 1077.

Reporting	ARES Members
VE3GV (VE3s GNW, LPM, MB, SV, TNL)	613
VE4JR	56
VE6AFO	270
VE7FB	138

### CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Divd	Total
VE1ALU	1	8	10	0	19
VE1BTU	1	9	9	0	19
VE1YS	0	10	11	0	21
VE1DLC	0	7	2	6	15
VE1VAR	3	2	3	0	8
VE2GOP	0	50	0	50	100
VE2BP	4	18	17	18	57
VE2WH	1	14	11	14	40
VE2JN	4	5	5	8	22
VE2ALE	0	0	1	0	1
VE3ORN	6	91	80	21	198
VE3GSQ	0	57	76	0	133
VE3CYR	0	84	32	1	117
VE3DVE	0	38	54	5	97
VE3BDM	0	76	17	0	93
VE3GNW	0	43	44	1	88
VE3GT	0	27	40	0	67
VE3KCZ	1	18	12	7	38
VE3MNI	0	11	10	11	32
VE3AJN	0	15	16	0	31
VE3NVJ	0	9	11	6	26
VE3EUI	0	10	14	0	24
VE3LPM	0	9	12	3	24
VE3WV	0	4	5	2	11
VE3BAJ	0	0	5	0	5
VE4JA	3	99	71	63	236
VE4FP	10	85	83	54	232
VE4JR	0	46	36	4	86
VE4LB	0	26	3	2	31
VE4STU	5	10	10	2	27
VE6XG	0	48	13	27	88
VE6CE	0	29	24	6	59
VE6GUS	0	6	6	12	24
VE6AKY	0	2	2	4	8
VE6ABC	0	1	1	2	4
VE7BNI	23	139	218	40	420
VE7EJU	0	86	118	0	204
VE7FAZ	1	76	71	5	153
VE7XA	1	31	40	6	76
VE7ANG	0	30	30	0	60
VE7CCJ	8	27	8	5	48
VE7BCL	0	29	14	2	45
VE7EGM	6	19	17	1	43
VE7FB	3	15	14	8	40
VE7OM	0	20	15	2	37
VE7VM	0	19	9	0	28
VE7BVZ	0	2	8	15	25

Call	Orig	Rcvd	Sent	Divd	Total
VE7GKA	0	14	10	0	24
VE7BCE	0	11	5	0	16
VE7DG	0	9	1	1	10
VE7AL	0	7	1	1	9
VE7WI	0	3	2	0	5

### National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1YS)	27	116	71
KTN (VE3AJN)	13	80	5
OPN (VE3BDM)	32	612	164
OQN-I (VE3GSQ)	27	22	16
OQN-D (VE3ORN)	28	89	26
OQN-E (VE3CYR)	31	86	29
OQN-L (VE3GSQ)	24	15	140
MEPN (VE4LB)	30	1078	32
MMWX (VE4TE)	31	421	15
MTN (VE4IX)	30	254	31
SATN (VE5ABF)	23	150	5
SPN VE5CJ)	28	1182	10
APSN (VE6AKY)	31	1179	34
BCEN (VE7EJU)	31	865	356

### Brass Pounders' League

This listing is available to amateurs who report to their SM a traffic total of 500 or a sum of originations and delivery points of 100 or more for any calendar month. All messages must be handled on amateur frequencies, using standard ARRL-CRRL form, within 48 hours of receipt.

BPL: None this month.

### Public Service Honour Roll

This listing is available to amateurs whose public service performance during the month indicated qualifies for 60 or more points in the following nine categories (as reported to their SM). Please note maximum points for each category: (1) Checking into CW nets, 1 point each, max 30; (2) Checking into phone/RTTY nets, 1 point each, max 30; (3) NCS CW nets, 3 points each, max 12; (4) NCS phone/RTTY nets, 3 points each, max 12; (5) Performing assigned NTS liaison, 3 points each, max 12; (6) Delivering a formal message to a third party, 1 point each, no max; (7) Handling an emergency message, 5 points each, no max; (8) Serving as an EC or NM for an entire month, 5 points max; (9) Participating in a public-service event, 5 points each, no max. Amateurs who qualify for Public Service Honour Roll 12 consecutive months, or 18 months out of a 24-month period, will be awarded a special certificate from CRRL Headquarters.

PSHR: VE4JA (169), VE3ORN (110), VE4LB (108), VE3GNW (99), VE3BDM (86), VE4STU (79), VE3CYR (72), VE3GT (69)

### Service and Specialized Nets

Independent Net Managers: Your monthly reports are welcomed. Send to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

Net (Mgr)	Sess	QNI	QTC
ARES Canada (VE3GV)	4	110	2
ARES Ontario (VE3GV)	1	4	0
CRRL ONTARS (VE3FQV)	31	10170	0
Aurora-1 (VE4AHG)	26	1194	9
Aurora-2 (VE4FP)	27	1258	3
ARES Alberta (VE6AKY)	8	230	4



"Local radio amateurs spent several hours last weekend building a radio tower platform at the southwest corner of the Greenwoods care facility.

"The new tower and accompanying antennas and radio equipment will provide a communications link with the radio control centre, located near the ambulance station on Fulford-Ganges Road.

"Members of the Salt Spring Amateur Radio Club said the cooperation of Greenwoods administrator Marg MacKay and board members led to the construction of the radio station. In turn, the station will help meet the communications needs of the care facility.

"Permission was given to erect the tower, and generous space was set aside for equipment and operating positions," noted radio club communications committee member David Massey. He said that the Greenwoods site is a good location for a tower due to its high elevation and proximity to the hospital. "When fully equipped, it will have the capability of handling a large volume of off-island traffic."

"Other sites are being planned. Each will have a small fixed emergency antenna and space for radio equipment. These will provide additional links between the control centre and local authorities.

"In the meantime, radio amateurs plan to complete the new tower at Greenwoods, and install a fixed antenna at the

control centre. These will be two more steps towards providing the local emergency program with an Amateur Radio communications system."

In his letter, Dave asks, "How is a net activated when the phone lines are down?" It seems to me that, if the telephone system is inoperative, the emergency that caused the interruption will be apparent to all ARES members. Here in Kingston, our members are instructed, in such an event, to check in on the first available repeater that is operable. Our Emergency Communications Plan lists the five repeaters to be used, in order of preference.

### STRIPLINE FILTER

Last August, we provided the *QST Canada* Tech Topics column with a description of John Lester, VE3MB's stripline filter. I was pleased to receive the following comment on it from Ken, VE3KJB. Ken lives in Ottawa:

"I completed the filter and got it tuned up and ready for action. Last night, I listened to the Champlain Mini-net on the 147.60-MHz repeater. This repeater is in Renfrew which is about 60 miles away. The frequency is usually so full of intermod that I gave up on it long ago. This time, however, using the stripline filter, I was able to hear everybody as clear as a bell over 90 per cent of the time. I must add that my 2-metre attic-mounted anten-

na was made out of coat hangers. Thanks and keep up the good work on the ARES column."

### EXERCISE SIERRA 1990

On the first Saturday morning in November, a military aircraft returning from the Persian Gulf crashed into a 230-kV transmission line north of Kingston. Power to a large area was cut off and most telephone systems were inoperative. Of the 152 passengers and crew, only 43 were believed to have survived. This was the scenario for Exercise Sierra 1990, designed and directed by Larry McGuire, VE3LDM, of the Kingston ARES group.

The local repeaters were assumed to be inoperative, so all communications in the crash area and in the Kingston area were on 2-metre simplex. Traffic was relayed between two nets using a 75-metre SSB link. Four stations were established in the crash area, and six more were set up in Kingston. Twenty formal radiograms were handled.

The main objective of this exercise was to gain experience in message relaying, and in dealing with two emergency nets operating entirely on simplex. Our operators gained considerable useful experience which is now causing us to fine tune some of our procedures and improve our emergency power equipment. Larry did a fine job of preparing the scenario, the written instructions for each operator, the net diagram, the frequency lists, the message texts, the sample log sheets and so on. It has occurred to us that other ARES groups might find this material—which runs to 20 pages—of interest. If your group would like a copy, drop me a line and send along a cheque for \$5 to cover the cost of photocopying and mailing. —Bob Boyd, VE3SV

*This column appears in both The Canadian Amateur and in QST Canada. We hope that it serves as an ongoing source of news and information about ARES for members of both CRRL and CARF.*

*A reminder that ARES is part of the CRRL Field Organization, although you do not have to be a CRRL member to take part. For more information about how to set up an ARES group, contact your CRRL Section Manager (address appears on page 3 of this QST Canada) or your CRRL Section Emergency Coordinator.* —Editor

### MOVING?

For uninterrupted delivery of *QST* and/or *QST Canada*, please send your change of address notice to CRRL, Box 56, Arva, ON N0M 1C0 eight weeks before you move. Quote your callsign or the seven-digit number from your mailing label. —Ray Staines, VE3ZJ

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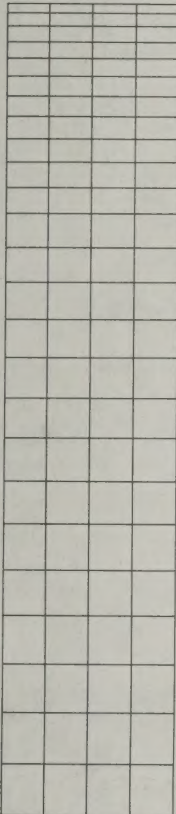
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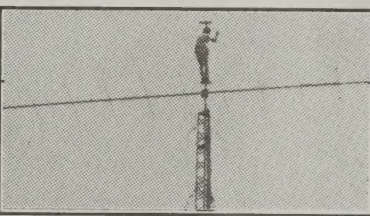

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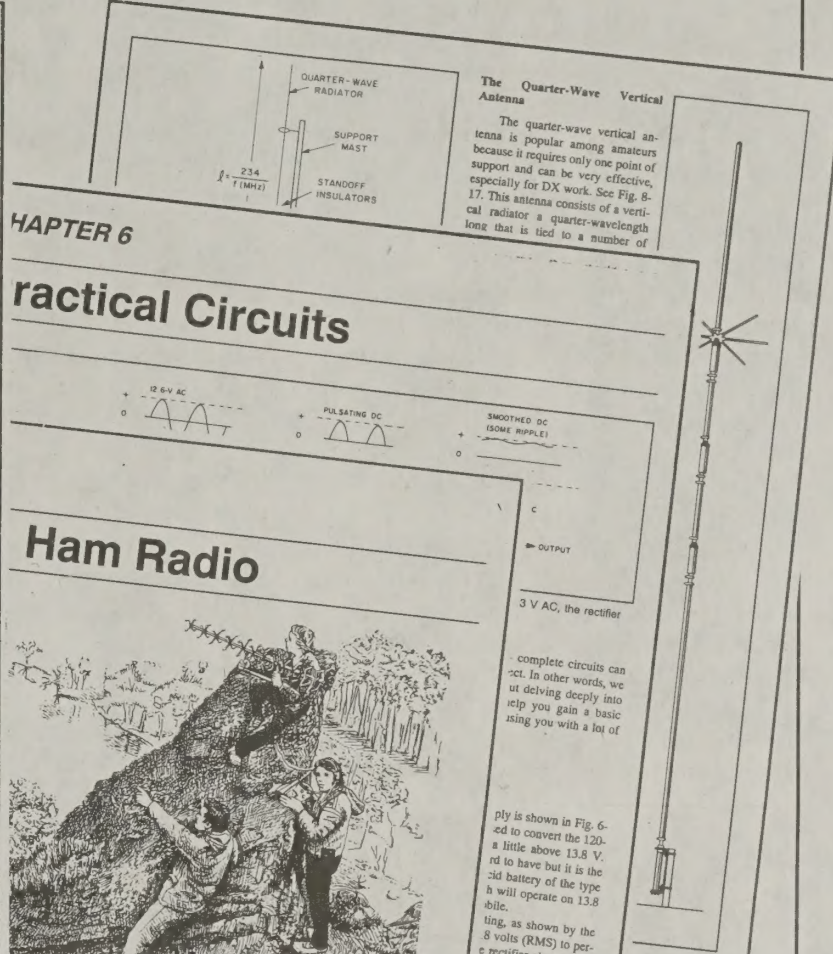


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